

METHOD AND APPARATUS FOR CONTROLLING RIPPLING DURING OPTICAL PROXIMITY CORRECTION

ABSTRACT

One embodiment of the present invention provides a system that controls rippling caused by optical proximity correction during an optical lithography process for manufacturing an integrated circuit. During operation, the system selects an evaluation point for a given segment, wherein the given segment is located on an edge in the layout of the integrated circuit. The system also selects a supplemental evaluation point for the given segment. Next, the system computes a deviation from a target location for the given segment at the evaluation point. The system also computes a supplemental deviation at the supplemental evaluation point. Next, the system adjusts a bias for the given segment, if necessary, based upon the deviation at the evaluation point. The system also calculates a ripple for the given segment based upon the deviation at the evaluation point and the supplemental deviation at the supplemental evaluation point. If this ripple exceeds a threshold value, the system performs a ripple control operation.